



SGT8000B_8 Port GPON OLT

Optical Line Terminal OLT



SGT8000B is high density 1U pizza box, it adopts the advanced technology and ASIC chip. SGT8000B is fully compliant with ITU-T G.984.x standards, can interwork with different types of ONU from different vendors. It can satisfy long-distance optical fiber access requirement on account of its excellent management, maintenance and monitoring capability, abundant service features and flexible network modes. SGT8000B supports network management via CLI and SNMP, with good user interface, easy to operate. SGT8000B provides the highest GPON port density in 1U box in the industry, which has 8 GPON ports, 2 *10GE or 8 *GE uplink ports. Single GPON port can manage 128 ONTs, one equipment can manage up to 1024 ONTs. The device is easy to install and commissioning, minimizing operators' investments, it is the best suitable for service provider to deploy GPON based FTTH network.

Family SGT8000_B GPON OLT:

Model NO. SGT8000B

Offers 8* GPON downstream ports

Offers 2 *10GE or 8 *GE upstream ports Redundant dual AC, dual DC or 1AC+1DC power supplies:

AC: Input 100~240V, 47~63Hz

DC: Input -38V~-72V;

Switching Capacity: 40Gbps

Power consumption:

Typical: 48W; Maximum: 72W

Product Measurement: 440mm×340mm×44mm Product Weight: ≤7kgs

Live Leds for all interfaces

Main Features:

ITU-T G.984.x GPON standard, compatible with Huawei, ZTE, Fiberhome, CHIMA GPON OLTs.

Offers 1*GPON WAN Port, support 2.5G for downstream and 1.25G for upstream

Offers 4 * Ethernet LAN ports, supports mixed GE and FE ports

Offers 2*FXS ports for high quality Voice over IP deployments.

Offers 300Mbps WiFi Router for Home WiFi applications

AES 128-bit encrypted and key switching, enhancing transmission security

39 Tconts and 256 GEM Port IDs, enabling multiple services on a single Subscriber CPE.

Layer 2 Switching, support 802.1Q VLAN, 802.1P QOS, Bandwidth Control, Spanning Tree, etc

Layer 3 Home Gateway/CPE features with Hardware NAT, support Multiple WAN, Route/Bridge mode, etc

Port Binding, different LAN ports can be assigned with different WAN services

Max 1:128 Fiber ration, max transmission distance can reach 35km

Technical Parameters

GPON Parameters

ITU-T G.984.x GPON compliant, Class B+ 2*10 SFF GPON transceiver,

SC/APC 1310nm upstream & 1490nm downstream

Support G.984.1 General Characteristics

Support G.984.2 Physical Media Dependent (PMD) layer Specification

Support G.984.3 Transmission convergence layer Specification

GPON transceiver sending power: 0.5-5dbm, receiving sensitivity: -27dbm

Transmission wavelength: Upstream: 1310nm / Downstream: 1490nm

Support 1:128 Fiber Optic Ratio at 35km transmission distance.

Fiber Transmission cable: G.652 Single mode optical fiber cable

Configurable AES decryption on downstream payload.

Configurable FEC on both upstream and downstream payloads.

Multi-Application Processor queues for dedicated connections for in-band.

Enhanced GPON debug and diagnostic functions.

Support up to 40 Transmission Container (T-Cons)

Support 256 bidirectional GEM Port IDs

Support NSR/SR Dynamic Bandwidth Allocation (DBA)

Support Forward Error Correction (FEC)

Maximum 2.488 Gbps Downlink/1.244 Gbps Uplink

Support Dying Gasp

Physical Characters:

Parameters	Description
Switching Capacity	40Gbps
PON Interface	8 ports GPON
Uplink Interface	2 ports 10GE or 8 ports GE
Power Supply	1 plus 1 AC: Input 100~240V, 47~63Hz
	1 plus 1 DC: Input -38V~-72V
Power consumption	Typical: 48W; Maximum: 72W
Dimensions (mm) (W*D*H)	440mm*340mm*44mm
	Working temperature: -5°C~55°C
Environment	Storage temperature: -40°C~70°C
	Relative humidity: 10%~90%, no condensing

Technical Specification:**Features**

PON Features	Compliant with ITU-T G.984.x standard	
	High splitter rate, each PON port supports up to 128 ONU and 1K T-CONT	
	Support of five types T-CONT bandwidth profile	
	Support of multiple ONU authentication mechanism: SN, Password, SN plus Password, Loid, LoidPassword.	
	Support of DBA (Dynamic Bandwidth Allocation)	
	Support of ranging and logical distance configuration	
	Support of upstream and downstream FEC enabling/disabling	
	Support of AES encryption	
Ethernet Features	VLAN	Support of 4K VLAN entries
		Support of QinQ based on port or service flow
		Support of VLAN add, remove, translate and transparent per ONU service flow based
	Spanning Tree	Support of IEEE 802.1D Spanning Tree Protocol (STP)
		Support of IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
	Port	Support of bi-directional bandwidth control
		Support of static link aggregation and dynamic LACP (Link Aggregation Control Protocol)
		Support of port mirroring and traffic mirroring
	Multicast	Static multicast
		IGMPv1/v2/v3
		IGMP Snooping/Proxy
		MLD Snooping/Proxy
		Support of multicast across different VLAN
	QoS	Support of rate-limit based on port or self-defined service flow
		Support of priority remark based on port or self-defined service flow and provide 802.1P,
		DSCP priority and Remark
		Support of QoS scheduling based on port and self-defined service flow, support of 8 priority
		queues, scheduler algorithm is SP, WRR, or SP plus WRR.
		Support of congestion avoid mechanism

Security Features	User Security	Support of anti-ARP-spoofing
		Support of anti-ARP-flooding
		Support of port isolation and ONU isolation control
		Support of binding among IP, MAC, VLAN and port
		Support of IPv4 DHCP relay option 82 and 60
	Device Security	Support of IPv6 DHCP relay option 37 and 18
		Support of anti-DoS attack
	Network Security	Support of hierarchical management and password protection
		Support of port-based broadcast/multicast suppression
		Support of L2 to L7 ACL flow filtration mechanism on the 80 bytes of the head of user-defined packet

>>> Order Information:

Model No.	Product Description
SGT8000B	SGT8000B GPON OLT, with 8*GPON Ports, 2 *10GE or 8 *GE uplink ports
SFP-GPON-T20	GPON SFP Transceiver, 1310Tx/1490Rx, SC/UPC, 20Km, Class B+
SGTU-10G-2-SFP+	SGT8016B Uplink Switching Board, 2*10G SFP+ slots